Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-29. (Cancelled)

30. (New) A method, comprising:

predicting a value of a predicate in a first instruction in an instruction pipeline of an out-of-order processor, wherein the value of the predicate determines whether the first instruction is to be executed;

modifying a plurality of values in a subset of a plurality of predicate registers using a read-modify-write operation based on the prediction;

determining architecturally correct values for the predicate after modifying the plurality of values;

comparing the architecturally correct values with the modified values in the plurality of predicate registers; and

flushing the first instruction from the instruction pipeline if the architecturally correct values are different from the modified values in the plurality of predicate registers.

31. (New) The method of claim 30, further comprising:

updating the plurality of predicate registers if the architecturally correct values are different from the modified values in the plurality of predicate registers.

32. (New) The method of claim 30, wherein modifying the plurality of values in the subset of the plurality of predicate registers using the read-modify-write operation based on the prediction comprises:

substantially simultaneously reading the plurality of values from the plurality of predicate registers;

parsing a dependency-producing instruction to identify the subset of the plurality of predicate registers;

modifying the plurality of values in the identified subset of the plurality of predicate registers; and

substantially simultaneously writing the plurality of values modified and a plurality of original values in remaining registers of the plurality of predicate registers into a second plurality of predicate registers.

33. (New) The method of claim 30, wherein the predicting of the value of the predicate is based on past history of the predicate.

34. (New) A computer readable medium containing executable instructions which, when executed in a processing system, causes the system to perform a set of operations, the set of operations comprising:

predicting a value of a predicate in a first instruction in an instruction pipeline of an out-of-order processor, wherein the value of the predicate determines whether the first instruction is to be executed;

modifying a plurality of values in a subset of a plurality of predicate registers using a read-modify-write operation based on the prediction;

determining architecturally correct values for the predicate after modifying the plurality of values;

comparing the architecturally correct values with the modified values in the plurality of predicate registers; and

flushing the first instruction from the instruction pipeline if the architecturally correct values are different from the modified values in the plurality of predicate registers.

35. (New) The computer readable medium of claim 34, wherein the operations further comprise:

updating the plurality of predicate registers if the architecturally correct values are different from the modified values in the plurality of predicate registers.

36. (New) The computer readable medium of claim 34, wherein modifying the plurality of values in the subset of the plurality of predicate registers using the read-modify-write operation based on the prediction comprises:

substantially simultaneously reading the plurality of values from the plurality of predicate registers;

parsing a dependency-producing instruction to identify the subset of the plurality of predicate registers;

modifying the plurality of values in the identified subset of the plurality of predicate registers; and

substantially simultaneously writing the plurality of values modified and a plurality of original values in remaining registers of the plurality of predicate registers into a second plurality of predicate registers.

37. (New) The computer readable medium of claim 34, wherein the predicting of the value of the predicate is based on past history of the predicate.